# FRIEDMAN & BRUYA, INC.

#### **ENVIRONMENTAL CHEMISTS**

Date of Report: April 3, 1996 Date Received: March 28, 1996

Project: Metro Self Monitor, PO #M52780 Date Samples Extracted: March 29, 1996 Date Extracts Analyzed: April 1, 1996

## RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR CHROMIUM, COPPER, NICKEL, AND ZINC USING METHOD 6010

### Samples Processed Using Method 3005A Results Reported as mg/L (ppm)

Sample ID	<u>Chromium</u>	Copper	<u>Nickel</u>	<u>Zinc</u>
M52780	0.14	0.10	<0.05	<0.05
Method Blank	< 0.05	< 0.05	< 0.05	< 0.05

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## QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 67535 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicat Result	Relative e Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.14	0.14	o	0-20
Copper	mg/L (ppm)	0.10	0.09	11a	0-20
Nickel	mg/L (ppm)	< 0.05	< 0.05	nm	0-20
Zinc	mg/L (ppm)	< 0.05	< 0.05	nm	0-20

Laboratory Code: 67535 (Matrix Spike)

	Reporting	Spike	Sample	% ]	Recovery	Acceptance	Relative Percent
Analyte:	Units	Level	Result	MS	MSD	Criteria	Difference
Chromium	mg/L (ppm)	5	0.14	92	94	80-120	2
Copper	mg/L (ppm)	5	0.10	95	96	80-120	1
Nickel	mg/L (ppm)	10	< 0.05	92	93	80-120	1
Zinc	mg/L (ppm)	5	< 0.05	91	. 91	80-120	0

Laboratory Code: Spike Blank

	Reporting	%	Recovery	Acceptance	Relative Percent			
Analyte:	Units	Spike Level	M	and the second of the second o		Difference		
Chromium	mg/L (ppm)	5	96	95	80-120	1		
Copper	mg/L (ppm)	5	99	97	80-120	2		
Nickel	mg/L (ppm)	10	96	95	80-120	1		
Zinc	mg/L (ppm)	5	98	92	80-120	1		

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Search, WA 98119-2029 (206) 285-8282

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# FRIEDMAN & BRUYA, INC.

#### **ENVIRONMENTAL CHEMISTS**

Andrew John Friedman James E. Bruya, Ph.D. (206) 285-8282 3012 16th Avenue West Seattle, WA 98119-2029 FAX: (206) 283-5044

April 3, 1996

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on March 28, 1996 from your Metro Self Monitor, PO #M52780 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson

Chemist

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**Enclosures** 

FAX: 382-7335 ACU0403R.DOC